Cleath-Harris Geologists, Inc.
11545 Los Osos Valley Road, Suite C-3
San Luis Obispo, California 93405
(805) 543-1413

September 21, 2009

C.M. Florence, AICP, Agent
EXCELARON LLC
Oasis Associates, Inc.
3427 Miguelito Court
San Luis Obispo, CA 93401

Subject: Response to Additional information Request for Excelaron Project (DRC2009-00002)

References: Water Resources Impact Study for the Proposed Huasna Oil Field Project, Huasna Valley, California, Cleath-Harris Geologists, Inc., July 21, 2009

Dear Ms. Florence:

The County of San Luis Obispo Department of Planning and Building in their letter dated August 20, 2009 has requested additional information from the applicant. In items 2 and 3, the County requests (1) a water quality analysis by a qualified individual that includes TPH (hydrocarbon chain) and B-techs (I assume this means BTEX) panels to help determine the potential hazard of this hydrocarbon source (the existing "seep") and (2) that a county-approved hydrogeologist (1) determine the best available water wells to use for monitoring purposes of groundwater constituents (e.g., well is down-gradient from the proposed oil well locations, etc.), and (2) obtain water quality samples from these water wells that test for TPH (hydrocarbon chain) and B-techs panels to help determine the potential for hydrocarbons.

The "seep" near the proposed shipping site was sampled on September 3, 2009 for TPH (gasoline) and BTEX. The Creek Environmental Laboratories Chain of Custody and test results are attached to this letter. No TPH or BTEX were found in the water despite the fact that there was a layer of tar covering the water in this pond. The tar floating on the pond is clearly a much higher molecular weight hydrocarbon complex of organic compounds and does not contribute low weight hydrocarbons to the water. The electrical conductivity of the water based on field testing was 2500 micromhos per centimeter. This is much higher than the drinking water limit of 1500 micromhos per centimeter. The electrical conductivity of the water is a measure of the salinity of the water. Water with this level of salinity is characteristic of that found in low permeability shales. This level of salinity is not necessarily associated with oil bearing strata but oil bearing strata contain water that is high in salinity and often times much higher than found at this site. This level of salinity is caused because the water in the oil bearing strata have been confined and subject to dissolution of native salts within the oil-bearing beds. Any water quality monitoring should necessarily include this parameter.

As a certified hydrogeologist with Cleath-Harris Geologists, Inc., I recommend that, if monitoring of groundwater is required, the primary water well to use for monitoring purposes of groundwater constituents be located in the area to the southwest of the project property in Tim O'Leary Canyon. This is the area where water wells come closest to tapping the formations that will be drilled during the development of the oil wells, although none are known or expected to, tap the same geologic units. The suite of constituents to be tested should be determined when the oil and water chemistry of the fluids produced from the newly drilled oil wells are characterized. For background purposes, a general mineral and a TPH (diesel) can be tested at the selected monitored water well. The groundwater level should be measured in the monitored water well in order to detect any anomalies that could be related to increased recharge to tapped aquifers due to oil/water intrusion into potable aquifers.

Currently, we are discussing the possibility of sampling and testing the well that is closest to the project site with it's property owner (APN 085-271-025). This well has a similar electrical conductivity level to the water in the oil seep pond. However, until such time as we can reach an agreement with this property owner no information is available. Additionally, we have sampled and tested another well slightly further to the west (APN 085-271-024). We were allowed to sample this other well and have had that well's water tested. The results of this other well's water test also is attached to this letter. As with the seep pond water, no TPH (gasoline) or BTEX were detected in the water well water.

As stated in our July 21, 2009 report, monitoring of groundwater to identify impacts due to the proposed project should conform to regulations established by the California Department of Oil, Gas and Geothermal Resources. The background water quality tests performed to date will need to be augmented once the oil wells are drilled and more definition of the oil bearing zones is obtained.

Sincerely,

CLEATH-HARRIS GEOLOGISTS, INC.

Timothy S. Cleath, Certified Hydrogeologist #81

Attachments

C: K. Matlick, Excelaron LLC

Creek Environmental Laboratories, Inc. Chain-of-Custody

141 Suburban Road, Suite C-5, San Luis Obispo, CA 93401 phone (805) 545-9838 fax (805) 545-0107 www.creeklabs.com sales@creeklabs.com

Order # Q4628

- Please Print in Pen

☐ DW EDT ☐ LU FT EDF ☐ Custom EDD

Client Name	Contact	Phone	Due Date:
CLEATH-HARRIS GEOLOGISTS	TIM CLEATH	805-543-1413	24Hr 48Hr Other Normal TAT
Address / **City** / **State** / **Zip**		Fax 805-543-4411	Cell / Beeper
Project Name/Number: Excelaron		PO#	Copies To:
Bill to: (if different from above)	Address	City	State Zip

Sampler Name (Print)	Comments:	Matrix Key: DW = Drinking Water AQ = Aqueous SL = Soil/Solid
TIM CLEATH	TAR ON WATER SURFACE	

Sample Description	Date/Time Sampled	Analysis	Matrix	# of Bottles	Preservative / Type Bottles	Creek Lab Sample #
OIL POND WATER	9/3/09 10:40AM	TPH & BTEX	AQ	3	VOA w/ HCl A-E	12587

RELINQUISHED BY (Sign)	(Print)	(Organization)	DATE/TIME	RECEIVED BY (Sign)	(Print)	(Organization)
	TIMOTHY CLEATH	CHG	9/3/09			
			9-3-09 12:05		Sara Schu	Creek Environmental Laboratories, Inc.

FOR LAB USE ONLY: Shipping Method: Client/ Lab/ Courier: Sample Conditions: **Temp:** 24.4 Intact: (Y)/ N Custody Sealed: Y/ N

REMARKS

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Tim Cleath
Cleath Harris Geologists, Inc.
1390 Oceanaire Drive
San Luis Obispo, CA 93405

Log Number: 09-C12587
Order: Q4628
Project: Excelaron
Received: 09/03/09
Printed: 09/15/09

REPORT OF ANALYTICAL RESULTS

Sample Description	Sampled By	Sampled Date @ Time	Matrix
Oil Pond Water	Tim Cleath	09/03/09@10:40	Aqueous

Analyte	Result	DLR	Dilution Factor	Units	Method	Date Analyzed	Date Prepared	Batch
TPH as Gasoline	Not Detected	0.05	1	mg/L	EPA 8015/LUFT	09/14/09		1959
Benzene	Not Detected	0.5	1	ug/L	EPA 8260	09/11/09		1938
Toluene	Not Detected	0.5	1	ug/L	EPA 8260	09/11/09		1938
Ethylbenzene	Not Detected	0.5	1	ug/L	EPA 8260	09/11/09		1938
m,p-Xylene	Not Detected	0.5	1	ug/L	EPA 8260	09/11/09		1938
o-Xylene	Not Detected	0.5	1	ug/L	EPA 8260	09/11/09		1938

DLR = Detection Limit for Reporting. Results of "Not Detected" are below DLR.

CREEK ENVIRONMENTAL LABORATORIES

Lab Director, Michael Ng

Creek Environmental Laboratories, Inc. Chain-of-Custody

141 Suburban Road, Suite C-5, San Luis Obispo, CA 93401 phone (805) 545-9838 fax (805) 545-0107 www.creeklabs.com sales@creeklabs.com

Order # Q4665

- Please Print in Pen

☐ DW EDT ☐ LUFT EDF ☐ Custom EDD

Client Name	Contact	Phone	Due Date: 24Hr 48Hr Other Normal TAT
Address City State Zip		Fax	Cell Beeper
Project Name/Number		PO#	Copies To:
Bill to: (if different from above) Address City State Zip			
Sampler Name (Print) Tim Cleath	Comments:		Matrix Key: DW = Drinking Water AQ = Aqueous SL = Soil/Solid

Sample Description	Date/Time Sampled	Analysis	Matrix	# of Bottles	Preservative / Type Bottles	Creek Lab Sample #
Shively Well	1/09 12:30	TPH / BTX	W	3	HCl/VOA	12660
Second Well	9/09	TPH/BTX	W	3	HCl/VOA	

RELINQUISHED BY (Sign)	(Print)	(Organization)	DATE/TIME	RECEIVED BY (Sign)	(Print)	(Organization)
Tim Cleath	Tim Cleath	CEL INC				
			9-4-09 13:48		Sara E. Schu	Creek Environmental Laboratories, Inc.

FOR LAB USE ONLY: Shipping Method: Client/ Lab/ Courier: Sample Conditions: **Temp:** 24.0 Intact: Y/ N Custody Sealed: Y/ N

REMARKS

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Tim Cleath
Cleath Harris Geologists, Inc.
1390 Oceanaire Drive
San Luis Obispo, CA 93405

Log Number: 09-C12660
Order: Q4665
Received: 09/04/09
Printed: 09/17/09

REPORT OF ANALYTICAL RESULTS

Sample Description	Sampled By	Sampled Date @ Time	Matrix
Shively Well	Tim Cleath	09/04/09@12:30	Drinking Water

Analyte	Result	DLR	Dilution Factor	Units	Method	Date Analyzed	Date Prepared	Batch
TPH as Gasoline	Not Detected	0.05	1	mg/L	EPA 8015/LUFT	09/14/09		1959
Benzene	Not Detected	0.5	1	ug/L	EPA 8260	09/11/09		1938
Toluene	Not Detected	0.5	1	ug/L	EPA 8260	09/11/09		1938
Ethylbenzene	Not Detected	0.5	1	ug/L	EPA 8260	09/11/09		1938
m,p-Xylene	Not Detected	0.5	1	ug/L	EPA 8260	09/11/09		1938
o-Xylene	Not Detected	0.5	1	ug/L	EPA 8260	09/11/09		1938

DLR = Detection Limit for Reporting. Results of "Not Detected" are below DLR.

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Lab Director, Michael Ng